

CLAIMS

1. A high-throughput assay device comprising:
  - a hollow tube having sidewalls defining an inner cavity, said inner cavity for passing a first flowable fluid therethrough;
  - 5 open ends; and
  - an opening extending through a sidewall, said opening for mounting a membrane thereon.
2. A method of identifying a compound that alters membrane traffic comprising:
  - 10 providing a high-throughput assay device comprising:
    - a hollow tube having sidewalls defining an inner cavity, said inner cavity for passing a first flowable fluid therethrough;
    - open ends; and
    - an opening extending through a sidewall, said opening for
    - 15 mounting a membrane thereon;
    - mounting a membrane patch onto the opening;
    - flowing a first flowable fluid containing a test compound through the inner cavity;
    - flowing a second flowable fluid over an outer surface of the device;
    - 20 and
    - determining whether the test compound increases or decreases traffic across the membrane patch.
  3. A membrane traffic modulator isolated according to the method of claim 2.
- 25 4. A method of identifying a compound that alters membrane traffic comprising:
  - providing a high-throughput assay device comprising:
    - a hollow tube having sidewalls defining an inner cavity, said inner cavity for passing a first flowable fluid therethrough;
    - 30 open ends; and
    - an opening extending through a sidewall, said opening for mounting a membrane thereon;
    - mounting a membrane patch onto the opening;

- flowing a first flowable fluid through the inner cavity;  
flowing a second flowable fluid containing a test compound over an  
outer surface of the device; and  
determining whether the test compound increases or decreases  
5 traffic across the membrane patch.
5. A membrane traffic modulator isolated according to the  
method of claim 4.